



ALASKA
MARINE

SCIENCE
SYMPOSIUM

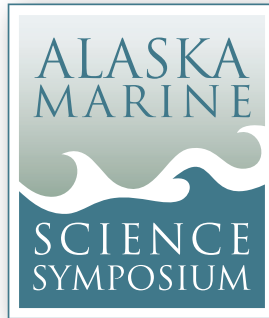
JANUARY 25-29, 2016

HOTEL CAPTAIN COOK & EGAN CENTER • ANCHORAGE, ALASKA

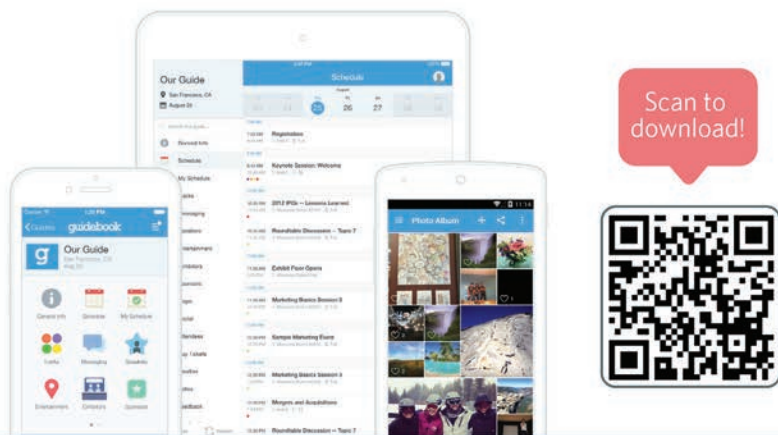
SHOWCASING MARINE RESEARCH IN THE ARCTIC OCEAN,
BERING SEA, AND GULF OF ALASKA

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Schedule

	MONDAY, JANUARY 25	TUESDAY, JANUARY 26
<p>Morning Plenary Session 8:00 a.m. – 11:30 a.m.</p>	<p>Workshop, 8:00 a.m. – 12:00 p.m. Communicating Ocean Sciences <i>Fore Deck, Discovery Ballroom</i></p> <p>Registration Opens, 10:00 a.m.</p> <p>Workshop, All Day Coastal Gallery, <i>Adventure Room</i></p>	<p>Continental Breakfast, 7:30 a.m. – 8:00 a.m.</p> <p>Registration Opens, 8:00 a.m.</p> <p>Arctic Plenary</p> <p>Workshop, All Day Coastal Gallery, <i>Adventure Room</i></p>
<p>Lunch 11:30 a.m. – 1:00 p.m.</p>	<p>Lunch on your own</p>	<p>Lunch provided</p> <p>Workshop, 11:45 a.m. – 12:45 p.m. What's IARPC and How Can You Be Involved? <i>Whitby Room</i></p>
<p>Afternoon Plenary Session 1:00 p.m. – 5:15 p.m.</p>	<p>Symposium Begins</p> <p>Opening Remarks, 1:00 p.m. – 1:30 p.m.</p> <p>Keynote, 1:30 p.m. – 2:15 p.m. Ambassador Mark Brzezinski</p> <p>Keynote, 2:15 p.m. – 3:00 p.m. Dr. Emanuele Di Lorenzo</p> <p>Keynote, 3:00 p.m. – 3:30 p.m. Dr. George Divoky</p> <p>Coffee Break, 3:30 p.m. – 3:45 p.m.</p> <p>Keynote, 3:45 p.m. – 4:30 p.m. Dr. Wallace J. Nichols</p> <p>Keynote, 4:30 p.m. – 5:15 p.m. Dr. Kristin Laidre and Maria Coryell-Martin</p>	<p>Arctic Plenary</p>
<p>Evening 6:00 p.m. – 9:00 p.m.</p>	<p>Exhibits and Poster Reception, 6:00 p.m. – 8:30 p.m. Arctic & Bering Sea/Aleutians</p> <ul style="list-style-type: none"> • Wave 1 – 6:00 p.m. – 7:15 p.m. • Wave 2 – 7:15 p.m. – 8:30 p.m. <p><i>Explorers Hall, Appetizers & No-Host Bar</i></p>	<p>Exhibits and Poster Reception, 6:00 p.m. – 8:30 p.m. Bering Sea/Aleutians and Gulf of Alaska</p> <ul style="list-style-type: none"> • Wave 1 – 6:00 p.m. – 7:15 p.m. • Wave 2 – 7:15 p.m. – 8:30 p.m. <p><i>Explorers Hall, Appetizers & No-Host Bar</i></p>

Posters/Exhibits & Receptions

Egan Center
555 W. 5th Ave.

Shuttle service between Egan Center and Hotel Captain Cook provided at 15 minute intervals, 5:45 p.m. – 8:45 p.m.

All Other Events

Hotel Captain Cook
939 W. 5th Ave.

Keynotes, Plenaries, and provided lunches in Discovery Ballroom

WEDNESDAY, JANUARY 27	THURSDAY, JANUARY 28	FRIDAY, JANUARY 29
<p>Continental Breakfast, 7:30 a.m. – 8:00 a.m.</p> <p>Registration Opens, 8:00 a.m.</p> <p>Bering Sea and Aleutian Islands Plenary</p> <p>Workshop, All Day Coastal Gallery, <i>Adventure Room</i></p>	<p>Continental Breakfast, 7:30 a.m. – 8:00 a.m.</p> <p>Gulf of Alaska Plenary</p> <p>Workshop, All Day Coastal Gallery, <i>Adventure Room</i></p>	<p>Workshop, All Day Coastal Gallery, <i>Adventure Room</i></p> <p>Workshop, 8:30 a.m. – 11:00 a.m. Arctic Ecosystem Integrated Survey <i>Aft Deck</i></p> <p>Workshop, 11:30 a.m. – 5:00 p.m. Coastal Marine Institute <i>Endeavor Room</i></p>
<p>Lunch on your own</p>	<p>Lunch provided</p>	
<p>Workshop, 11:30 a.m. – 1:00 p.m. Walrus Disturbance Workshop <i>Quadrant Room</i></p> <p>Workshop, 12:00 p.m. – 1:30 p.m. Introduction to ARCUS: The Arctic Research Consortium of the U.S. <i>Voyager Room</i></p>		
<p>Bering Sea and Aleutian Islands Plenary</p> <p>Student Poster Presentation Award Announcements, 4:45 p.m. – 5:00 p.m.</p>	<p>Gulf of Alaska Plenary</p> <p>Student Oral Presentation Award Announcements and Closing Remarks, 4:45 p.m. – 5:15 p.m.</p>	
<p>Workshop, 7:00 p.m. – 9:00 p.m. Arctic Research Planning Evening <i>Quarter Deck</i></p>		

Lactation Station
Monday – Friday
Hotel Captain Cook
Library

Media Room
Monday – Thursday
Hotel Captain Cook
Easter Island Room

Keynote Speakers

Monday, January 25

1:30 p.m. – 2:15 p.m.

AMBASSADOR MARK BRZEZINSKI, EXECUTIVE DIRECTOR OF THE U.S. GOVERNMENT'S ARCTIC EXECUTIVE STEERING COMMITTEE

Arctic Executive Steering Committee - One Year on Report From the Executive Director



Former United States Ambassador to Sweden, Mark Brzezinski serves as Executive Director of the U.S. Government's Arctic Executive Steering Committee. On January 21st, 2015, in recognition of the unique challenges and opportunities presented by the Arctic, President Obama issued an Executive Order to enhance coordination of national efforts in the Arctic. The Executive Order creates expanded opportunities for Alaskans and those in the Federal government to work on Arctic issues and establishes a clear structure to improve the coordination of Federal Arctic activity.

An Arctic Executive Steering Committee (AESC) was established to oversee implementation of the National Strategy for the Arctic Region (<https://www.whitehouse.gov/blog/2015/03/27/white-house-releases-implementation-report-national-strategy-arctic>). The AESC convenes at the Deputy Secretary level to guide the development of department and agency plans to assure that Federal activity is well-coordinated and better communicated to partners such as the State of Alaska, Alaska Native communities, the U.S. Congress, the business community, international partners, and other stakeholders. Dr. John Holdren, Assistant to the President for Science and Technology and Director of the White House Office of Science and Technology Policy, serves as the AESC Chair.

As U.S. Ambassador to Sweden between 2011-2015, Mark worked closely with the Swedish Government during its Chairmanship of the Arctic Council. The U.S. is one of eight member nations of the Arctic Council, and currently is the Council's Chair. In May 2013, Mark joined the U.S. Delegation led by Secretary of State John Kerry to the Arctic Council Ministerial in Kiruna, Sweden, above the Arctic Circle. At that ministerial, key agreements involving Arctic search and rescue, oil spill preparedness and cleanup, and inclusion of non-Arctic nations as Arctic Council observers were advanced. In September 2013, Mark welcomed President Barack Obama to Stockholm for a historic, first ever visit by a sitting U.S. President to Sweden's capital. In Stockholm, President Obama and all five heads of government of the Nordic countries met together to discuss a shared approach to climate change and the future of the Arctic among other issues. Mark made the Arctic a central focus of his tenure in Sweden. Speaking in February 2015 at Dartmouth College where he gave the Montgomery Fellowship lecture on the Arctic, Mark noted that "the Arctic is simultaneously a strategic problem and a human problem." At the U.S. Embassy, he developed new partnerships with government and diplomats, business, media and entertainment, and the environmental and NGO community to consider the link between what is happening in the Arctic and what is happening in the rest of the world. He used new communications and social-media tools to share how the looming crisis confronting the Arctic is a tangible preview of the crisis confronting the world as a whole. Mark initiated and helped develop the new U.S. Fulbright Scholarship devoted to the study of the future of the Arctic. The new Arctic Fulbright, funded by the State Department, is a unique two-year program composed of researchers selected from the eight Arctic Council countries. Mark served on the National Security Council staff under President Clinton between 1999-2001, first as Director for Russia and Eurasia, then as Director for the Balkans.

Mark received his undergraduate degree at Dartmouth College, his law degree at the University of Virginia Law School and obtained his Doctorate in political science from Oxford University. He was a Fulbright Scholar in Warsaw, Poland between 1991-1993. He was a partner at a Washington, D.C. law firm before joining the Obama Administration, and is a member of the Council on Foreign Relations.

2:15 p.m. – 3:00 p.m.

DR. EMANUELE DI LORENZO, SCHOOL OF EARTH & ATMOSPHERIC SCIENCES

Persistent Record-High Temperatures in the North Pacific in 2014/2015: A Climate Hypothesis



Dr. Emanuele Di Lorenzo is a professor of ocean and climate sciences at the Georgia Institute of Technology. Trained as a coastal physical oceanographer and modeler at Scripps (2003 Ph.D.), Di Lorenzo's work now focuses on developing observationally-constrained theories and models to explain large-scale ocean and climate changes. He conducts interdisciplinary research on diagnosing the climate impacts on regional and coastal marine ecosystems, particularly in the Pacific Ocean (e.g. www.pobex.org). Di

Lorenzo is active in international organizations such as CLIVAR, PICES and ICES. In PICES, he is co-chair of WG27 on North Pacific climate variability and change. He is also a member of the Phenomena, Observations and Synthesis panel in US CLIVAR. More recently, Di Lorenzo has expanded his interdisciplinary research interests towards modelling social-ecological-environmental systems.

3:00 p.m. – 3:30 p.m.

DR. GEORGE DIVOKY, DIRECTOR, FRIENDS OF COOPER ISLAND

Four Decades of Change: An Arctic Seabird Responds to a Warming Arctic



Dr. George Divoky has studied Alaskan seabirds since 1970 when he participated in censuses of marine birds and mammals in the Beaufort and Chukchi seas. In 1975, he began a study of Black Guillemots, a diving seabird, on Cooper Island, 35 km east of Point Barrow, Alaska, that he still maintains. The study, starting its fifth decade, is the longest continuous seabird study in the Arctic. The time series of data on

phenology, breeding success, diet and adult survival provided some of the first examples of the biological consequences of snow and sea ice reductions in the Arctic and continues to track the major environmental changes now occurring in the region.

Divoky has also worked for federal and state agencies on a range of Alaskan seabird management and conservation issues including the Alaska Native Land Claims Settlement Act, oil and gas exploration of the outer continental shelf, oil spill damage assessment and restoration, and regional climate change. He is currently Director of Friends of Cooper Island, a Seattle-based nonprofit organization, working to analyze the observations from Cooper Island and ensure their continuation in coming decades.

Keynote Speakers

Divoky's research on the Black Guillemots of Cooper Island was featured in a cover story in the New York Times Magazine entitled "George Divoky's Planet," in the PBS's Scientific American Frontiers program "Hot Times in Alaska" with Alan Alda, and on ABC Nightly News and Nightline. He has appeared on The Late Show with David Letterman, and has been interviewed on NPR's Talk of the Nation and Science Friday. His research and experiences on Cooper Island were featured in *Greenland*, a play about climate change staged by the Royal National Theatre in London in 2011.

Divoky was born and raised in Cleveland, Ohio, has Bachelor's and Master's degrees from Michigan State University and a Doctorate from the University of Alaska Fairbanks.

3:45 p.m. – 4:30 p.m.

DR. WALLACE NICHOLS, SCIENTIST, AUTHOR, CONSULTANT, EDUCATOR, ENTREPRENEUR

Blue Mind: Changing the Way We Think About Water



Scientist Wallace "J." Nichols, author of the New York Times best-selling *Blue Mind*, will present cutting-edge neuroscience research about the benefits of being in, on, or simply near water. He will also describe his personal experiences with successful communication efforts related to the crucial importance of our connection to water that engage people in problem-solving around ocean issues. In addition to being a scientist and author, J. Nichols is a wild water advocate, movement-maker, and dad. His research and expeditions have taken him to coasts and waterways across North,

Central and South America, to Asia, Africa, Australia, and Europe. This is what keeps his colleagues and collaborators working hard to understand and restore our blue planet. He is a Research Associate at California Academy of Sciences and co-founder of Ocean Revolution, an international network of young ocean advocates, SEE the WILD, a conservation travel network, Grupo Tortuguero, an international sea turtle conservation network, and Blue Mind Fund, reconnecting people to water. His research interests span ocean and aquatic ecosystems, migratory species, marine protected areas, fisheries management, and plastic pollution with special emphasis on building new action networks. He has authored and co-authored more than 200 scientific papers, articles, and reports, and his work has been broadcasted on NPR, BBC, PBS, CBS This Morning, Discovery Channel, The National Geographic Channel and Animal Planet as well as featured in *Time*, *Newsweek*, *GQ*, *Outside Magazine*, *Fast Company*, *Scientific American* and *New Scientist*, among others.

4:30 p.m. – 5:15 p.m.

DR. KRISTIN LAIDRE, UNIVERSITY OF WASHINGTON, POLAR SCIENCE CENTER,
APPLIED PHYSICS LABORATORY

MARIA CORYELL-MARTIN, EXPEDITIONARY ART

Imaging the Arctic: Communicating Climate Science Through Art



Dr. Kristin Laidre is a marine biologist at the University of Washington, Seattle working at the Polar Science Center, Applied Physics Laboratory and the School of Aquatic and Fishery Sciences. She is partially supported by the Greenland Institute of Natural Resources in Nuuk. Her research is field-based and is focused on studying the behavior, ecology, and population dynamics of Arctic marine mammals. She is a member of the IUCN Species Survival Commission Polar Bear Specialist Group and the IUCN Species Survival

Commission Cetacean Specialist Group. She has published over 80 peer-reviewed scientific papers and co-authored 2 books on Arctic marine mammals.



Maria Coryell-Martin is an expeditionary artist following the tradition of traveling artists as naturalists and educators. She graduated from Carleton College in 2004 and received a Thomas J. Watson fellowship to explore remote regions through art from 2004-2005. Since then, Maria has worked with scientists, local communities, and expeditions in Alaska, Canada, Greenland, and the Antarctic Peninsula. In the field, Coryell-Martin sketches with ink and watercolor, and collects multimedia recordings to build her

palette of place, a record of experience, climate, and color. This work is the basis for exhibits of large-scale studio and field paintings, as well as multimedia presentations and hands-on workshops for audiences of all ages to promote observation, scientific inquiry, and environmental awareness. To learn more, visit: expeditionaryart.com

Arctic Plenary Session



Tuesday, January 26 7:30 a.m. – 5:00 p.m.

7:30 A.M. – 8:00 A.M. CONTINENTAL BREAKFAST

CLIMATE & OCEANOGRAPHY

- 8:00 – 8:15 **Robert Pickart** Closing the Mass Budget Between Bering Strait and the Arctic Basin: The Chukchi Slope Current
- 8:15 – 8:30 **Jeremy Mathis** Ocean Acidification in the Pacific-Arctic Boundary Regions
- 8:30 – 8:45 **Rachel Potter** Surface Currents on the Northeastern Chukchi and Western Beaufort Sea Shelves
- 8:45 – 9:00 **Carol Ladd** Time Series of Currents and Water Masses on the Chukchi Shelf
- 9:00 – 9:15 ***Vincent Domena** Dissolved and Particulate Trace Metal Concentrations in Sea Ice at Oliktok Point, Alaska

LOWER TROPHIC LEVELS

- 9:15 – 9:30 **Calvin Mordy** Variability of Flow, Nutrients, and Chlorophyll in the Chukchi Sea
- 9:30 – 10:00 **BREAK**
- 10:00 – 10:15 ***Kyle Dilliplaine** Biological Influence and Impact of Oil Spills in Ice Covered Waters
- 10:15 – 10:30 ***Alexandra Ravelo** What Lies Beneath the Ice: Using Sea Ice as a Driver of Benthic Communities in the Alaska Arctic
- 10:30 – 10:45 ***Elizaveta Ershova** Long-term Changes in Summer Zooplankton Communities of the Western Chukchi Sea, 1945-2012

FISHES & FISH HABITATS

- 10:45 – 11:00 **Benjamin Laurel** Juvenile Growth and Lipid Dynamics of Arctic Cod (*Boreogadus saida*) and Other Alaskan Gadids Under Variable Environments
- 11:00 – 11:15 **Brenda Norcross** Plan for Monitoring Bottom Fish Communities in the Beaufort Sea
- 11:15 – 11:30 ***Jen Marsh** Population Dynamics of Arctic Cod (*Boreogadus saida*) in the Eastern Chukchi Sea

11:30 – 1:00 LUNCH PROVIDED

1:00 – 1:15 **Ed Farley** Pink Salmon as Sentinels for Climate Change in the Arctic

SEABIRDS

1:15 – 1:30 **Adrian Gall** Seabirds Signal Short-term Patterns and Long-term Trends in Oceanographic Variability of the Eastern Chukchi Sea

1:30 – 1:45 ***A. Catherine Pham** Interannual Variability in Seabird Communities with Respect to Prey and Environmental Properties in the Northern Bering and Chukchi seas

MARINE MAMMALS

1:45 – 2:00 ***Anthony Pagano** Spring Field Metabolic Rates and Behaviors of Adult Female Polar Bears on the Sea Ice of the Southern Beaufort Sea

2:00 – 2:15 **Manuel Castellote** Unexpected Presence of Transient Killer Whales in Kotzebue Sound

2:15 – 2:30 **Mark Baumgartner** Marine Mammal Distribution and Habitat in the Eastern Chukchi Sea Observed from a Slocum Ocean Glider

2:30 – 3:00 BREAK

3:00 – 3:15 **John Citta** Oceanographic Characteristics Associated with Bowhead Behaviors in the Chukchi Sea

HUMAN DIMENSIONS

3:15 – 3:30 **Marilyn Sigman** Best Practices for Community-Based Monitoring: Observing Alaska's Coasts and Oceans

3:30 – 3:45 ***Kristen Shake** The Uncertainties of Sea Ice: Socio-legal Dynamics in a Changing Arctic Ocean-scape

ECOSYSTEM PERSPECTIVES

3:45 – 4:00 **Carin Ashjian** Predictable Wind Forced Upwelling Can Lead to a Favorable Feeding Environment for Bowhead Whales in Nearshore Waters Near Barrow, Alaska: A Synthesis of Results from BOWFEST

4:00 – 4:15 **Katrin Iken** AMBON – The Arctic Marine Biodiversity Observing Network

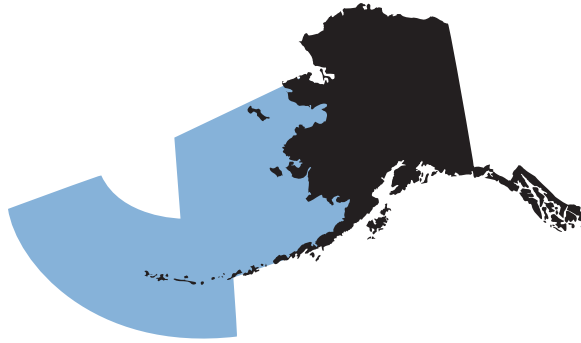
4:15 – 4:30 **Sue Moore** The Arctic Marine Pulses Model: Linking Contiguous Domains in the Pacific Arctic Region

4:30 – 4:45 **Robert Day** Interannual Variability and Change in an Arctic Ecosystem: Can We Separate a Signal from the Noise?

4:45 – 5:00 **Seth Danielson** A Northeastern Chukchi Shelf Ecosystem Observatory: Year 1 Results and Year 2 Build-out

*Student Presentation

Bering Sea & Aleutian Islands Plenary Session



Wednesday, January 27 7:30 a.m. – 5:00 p.m.

7:30 A.M. – 8:00 A.M. CONTINENTAL BREAKFAST

CLIMATE & OCEANOGRAPHY

- 8:00 – 8:15 **Phyllis Stabeno** The Status of the Southern Bering Sea in 2015: Warm
- 8:15 – 8:30 ***Jon S. Allen** Spatial Prediction of Changes in Flood Susceptibility and Vegetation Distribution Due to Sea-level Rise on the Yukon-Kuskokwim Delta
- 8:30 – 8:45 **Jessica Cross** Surface Mapping of the Bering Sea During Seasonal Ice Retreat
- 8:45 – 9:00 **Gleb Panteleev** A 4D Variational Reanalysis of the Bering Sea Circulation in 2007-2010
- 9:00 – 9:15 **Peter Winsor** Coastal Community Ocean Observers (C₂O₂): A Network of Community-driven Coastal Ocean Observations
- 9:15 – 9:30 ***Brian Joyce** A High-Resolution Coupled Tide and Storm Surge Model for the Gulf of Alaska, Bering Sea, Chukchi Sea, and Beaufort Sea
- 9:30 – 10:00 **BREAK**

LOWER TROPHIC LEVELS

- 10:00 – 10:15 **Ned Laman** Using Species Distribution Models to Define Essential Fish Habitat in Alaska
- 10:15 – 10:30 **Lisa Eisner** Seasonal Phenology of Zooplankton Composition in the Southeastern Bering Sea, 2008-2010

FISHES & FISH HABITATS

- 10:30 – 10:45 **Daniel Schindler** Coherence in Population Dynamics of Western Alaska Chinook Salmon and Relationships to Environmental Forcing Over Their Life-cycle
- 10:45 – 11:00 **Katharine Miller** Early Marine Ecology of Juvenile Chinook Salmon (*Oncorhynchus tshawytscha*) on the Yukon Delta, Alaska
- 11:00 – 11:15 **Ian Hartwell** Bioeffects Assessment in Kvichak and Nushagak Bay, Alaska: Characterization of Soft Bottom Benthic Habitats, Fish Body Burdens, and Contaminant Baseline

11:15 – 11:30 **Curry Cunningham** Evaluating the Freshwater and Marine Drivers of Yukon River Chinook Survival with Stage-structured Life Cycle Models

11:30 – 1:00 LUNCH (ON YOUR OWN)

SEABIRDS

1:00 – 1:15 ***Natalie Bool** Tracking the Foraging Movements of Short-tailed Shearwaters During the Non-breeding Period, Using Geo-location Sensors

1:15 – 1:30 ***Alexis Will** Groundwork for Examining Seabird Responses to Bering Sea Regime Shifts

1:30 – 1:45 **Melanie Smith** Application of a Scalable Change Detection Tool to Assess Climate Change Vulnerability for Important Bird Areas in the Bering Sea and Aleutian Islands

MARINE MAMMALS

1:45 – 2:00 **Michelle Lander** Mixing it up in Alaska: Habitat Use of Adult Female Steller Sea Lions (*Eumetopias jubatus*) Reveals a Variety of Foraging Strategies

2:00 – 2:15 **Patrick Lemons** Assessment of a Genetics Based Capture-Mark-Recapture Approach for Estimation of Abundance and Demographic Rates of Pacific Walruses

2:15 – 2:30 ***Srishti Dasarathy** Integration of Oceanographic Data with Fin Whale Calling Presence in the Bering Sea

2:30 – 3:00 COFFEE BREAK

3:00 – 3:15 ***Deborah Sharpe** Using Vocal Dialects to Assess the Population Structure of Bigg's Killer Whales in Alaska

HUMAN DIMENSIONS

3:15 – 3:30 **Douglas Burn** Thinking Strategically in the Aleutian Archipelago

3:30 – 3:45 ***Hillary Hafner** Testing Sociocultural Impacts of Declining Chinook Salmon Runs on Yukon River Communities

3:45 – 4:00 ***Jesse Coleman** Broken Links: How Limited Entry, Markets, and Family Have Transformed Access to and Participation in Bristol Bay's Commercial Fisheries

ECOSYSTEM PERSPECTIVES

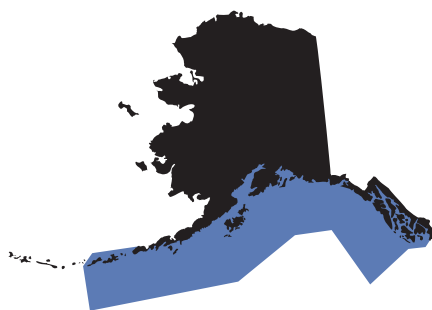
4:00 – 4:15 **Shiway Wang** Carbon Sources of Ice Seals During Recent Environmental Shifts in the Bering Sea

4:15 – 4:30 **Ric Brodeur** Jellyfish – Fish Trophic Interactions in the Bering Sea: Ecosystem Impacts of Jellyfish Population Fluctuations

4:30 – 4:45 **Mike Litzow** Early Warning Indicators to Track Resilience in the Bering Sea Ecosystem

4:45 – 5:00 STUDENT POSTER PRESENTATION AWARD

Gulf of Alaska Plenary Session



Thursday, January 28 7:30 a.m. – 5:15 p.m.

7:30 A.M. – 8:00 A.M. CONTINENTAL BREAKFAST

CLIMATE & OCEANOGRAPHY

- 8:00 – 8:15 ***Thomas Mosier** More Robust Projections of Freshwater Fluxes into the Gulf of Alaska Under Climate Change: An Intercomparison of Coupled Hydrologic-Cryosphere Models
- 8:15 – 8:30 ***Jordan Beamer** Climate Change Impacts on Alaskan Hydrology and Freshwater Discharge
- 8:30 – 8:45 **Wiley Evans** An Ocean Acidification Lighthouse for the Shellfish Aquaculture Industry in the State of Alaska: Alutiiq Pride Shellfish Hatchery
- 8:45 – 9:00 **Robert Campbell** Surface Layer and Bloom Dynamics in Prince William Sound

LOWER TROPHIC LEVELS

- 9:00 – 9:15 **Sonia Batten** The Effects of the Anomalous Warming on Lower Trophic Levels in the Gulf of Alaska from Continuous Plankton Recorder Sampling
- 9:15 – 9:30 **Elizabeth Siddon** Early Life History Ecology for Five Commercially and Ecologically Important Fish Species in the Eastern and Western Gulf of Alaska in 2011 and 2013
- 9:30 – 10:00 **BREAK**

FISHES & FISH HABITATS

- 10:00 – 10:15 ***Jane Sullivan** Can Fishing Explain Declines in Size-at-age of Pacific Halibut?
- 10:15 – 10:30 ***Erin Fedewa** Pre-settlement Processes of Northern Rock Sole (*Lepidopsetta polyxystra*) in Relation to Interannual Variability in the Gulf of Alaska
- 10:30 – 10:45 **William Long** How Does Release Density Affect Enhancement Success for Hatchery-reared Red King Crab?
- 10:45 – 11:00 **Ron Heintz** Ecological Factors Influencing the Overwinter Survival of Age-0 Herring in Prince William Sound

SEABIRDS

- 11:00 – 11:15 **Anne Schaefer** The Influence of Ocean Productivity on Stress and Parental Investment in a Long-lived Seabird
- 11:15 – 11:30 **Heather Renner** Does the Warm Water Blob Explain Seabird Die-offs and Low Reproductive Success in 2015?
- 11:30 – 1:00 LUNCH PROVIDED
- 1:00 – 1:15 ***Katharine Studholme** Non-breeding Distributions and Spatial Ecology of Rhinoceros Auklets from Colonies in Alaska and British Columbia, with Implications for Management
- 1:15 – 1:30 ***Sarah Tanedo** Using Remote Techniques to Identify Factors Influencing Annual Productivity of a Colony of Black-legged Kittiwakes (*Rissa tridactyla*) in the Northern Gulf of Alaska

MARINE MAMMALS

- 1:30 – 1:45 **Russel Andrews** Expanding their Range and the Depredation Problem, Sperm Whales Enter New Habitat in Chatham Strait, Inside Waters of Southeast Alaska
- 1:45 – 2:00 **Robert Small** Seasonal Distribution and Foraging Behavior of Cook Inlet Beluga Whales
- 2:00 – 2:15 **Sarah Courbis** Where Science Meets Policy: Protected Species Permitting and Take Estimation
- 2:15 – 2:30 **Kim Parsons** Filling in the Blanks: Multidisciplinary Approaches for Addressing Critical Data Gaps in Our Understanding of the Structure of Southeast Alaska Harbor Porpoise (*Phocoena phocoena*)

HUMAN DIMENSIONS

- 2:30 – 2:45 **Ian Davidson** Managing the Invasive Tunicate, *Didemnum vexillum*, in Alaska
- 2:45 – 3:00 BREAK
- 3:00 – 3:15 **Rachel Donkersloot** Graying of the Fleet in Kodiak's Fisheries: Defining the Problem and Assessing Solutions

ECOSYSTEM PERSPECTIVES

- 3:15 – 3:30 ***Szymon Surma** Examining the Effects of Herring Fishing Strategies on a Northeast Pacific Ecosystem
- 3:30 – 3:45 ***Alyssa Lind** The Effects of Rising Sea Surface Temperature and Decreasing Salinity on Kelp Forest Ecosystems
- 3:45 – 4:15 **Tammy Hoem Neher** Gulf Watch Alaska in Hot Water! Ecological Patterns in the Northern Gulf of Alaska under the Pacific 2014-2015 Warm Anomaly
- 4:15 – 4:45 **Russell Hopcroft** Gulf of Alaska Project: The Gauntlet Games – Final Showdown
- 4:45 – 5:00 BEST STUDENT ORAL PRESENTATIONS WINNERS ANNOUNCED
- 5:00 – 5:15 CLOSING REMARKS

Workshops

Workshops held at Hotel Captain Cook

All week

Coastal Gallery

All Day, Adventure Room

Join the ShoreZone mapping program in a walk through landscapes, colors, textures and habitats in a diverse photo exhibition.

Sunday

Keynote Author Reading

7:00 p.m. – 9:00 p.m., Quarter Deck

Keynote Presenter, Dr. Nichols, will read from his New York Times best-selling book *Blue Mind*. Following the reading, join the conversation about basing communication on these benefits to engage people in problem-solving for our ocean environment. Free and open to the public.

Monday

Communicating Ocean Sciences

8:00 a.m. – 12:00 p.m., Fore Deck, Discovery Ballroom

In its tenth year, the Communicating Ocean Sciences Workshop provides tips, tricks, and other ways to improve scientific communication. Past workshop topics have included: engaging with rural communities, using GoPro video equipment to tell a story, empowering citizen scientists, how to write for the general public, and more. This workshop is intended for scientists, educators, media, and those interested in learning more about how science is communicated. Sponsored by the North Pacific Research Board (NPRB), Centers for Ocean Sciences Education Excellence Alaska (COSEE Alaska), Alaska Sea Grant, Alaska Ocean Observing System (AOOS), Alaska SeaLife Center (ASLC) and the Alaska Chapter of the Northwest Aquatic and Marine Educators Association (NAME). Open to the public and free, upon registration.

Tuesday

What's IARPC and How Can You Be Involved?

11:45 a.m. – 12:45 p.m., Whitby Room

Federal and non-Federal leaders of the Interagency Arctic Research Policy Committee's (IARPC) collaborations teams will be holding an information session on IARPC. They will provide an overview of the marine collaboration teams, explain how and why the research community can engage in IARPC, and introduce the process by which IARPC is updating its current 5-year plan.

Speakers: Candace Nachman (NOAA); Sue Moore (NOAA); Danielle Dickson (NPRB); Jackie Grebmeier (UMCES)

Wednesday

Walrus Disturbance Workshop

11:30 a.m. – 1:00 p.m., Quadrant Room

Olgoonik Fairweather is hosting an open workshop with invited guest speakers, interested stakeholders, and Walrus Disturbance Workshop resource managers to discuss the state of knowledge on walrus disturbance. In this open discussion, we will: 1) Identify current research on walrus disturbance and data gaps for future direction; 2) Research techniques for determining disturbance; 3) Data collection techniques that may assist regulatory decision-making; and 4) Current management policy. This workshop is intended to facilitate information exchange among walrus stakeholders in Alaska. If you have any

questions on the workshop, please contact Sheyna Wisdom (sheyna.wisdom@fairweather.com, 907-267-4611). Lunch will be provided, please RSVP to Tanja Davis (tanja.davis@fairweather.com) and Willow Hetrick (willow.hetrick@fairweather.com).

Introduction to ARCUS: The Arctic Research Consortium of the U.S.

12:00 p.m. – 1:30 p.m., Voyager Room

The Arctic Research Consortium of the United States (ARCUS) will be hosting a drop-in event in connection with the Alaska Marine Science Symposium. You are invited to meet with members of the ARCUS Board and staff to discuss your ideas to better connect and support Arctic research, and hear about the new ARCUS membership categories and benefits. Learn how we can help your research advance through communication, coordination, and collaboration that ARCUS supports. A light lunch will be provided for attendees.

Arctic Research Planning Evening

7:00 p.m. – 9:00 p.m., Quarter Deck

Olgoonik Fairweather is hosting the annual Arctic Research Planning Night at the Quarter Deck. This event is held to facilitate collaboration and knowledge sharing among Arctic researchers. We welcome everyone interested in discussing Arctic research. As with previous years, please either send in advance or bring a thumb drive with a few slides that outlines your research plans for 2016 and beyond. Include vessel location, duration of cruise, objectives, types of data to be collected, available bunk space, and length of contract. Slides may be sent to Sheyna Wisdom at Olgoonik Fairweather (sheyna.wisdom@fairweather.com). No RSVP is required. Beer/wine and appetizers will be provided by Olgoonik Fairweather.

Friday

Arctic Ecosystem Integrated Survey

8:30 a.m. – 11:00 a.m., Aft Deck

This workshop reviews some of the key findings from a comprehensive ecosystem survey conducted in the northern Bering Sea and Chukchi Sea in 2012/13 with a focus on upper trophic level communities. Presentations will focus on methodological advances and on the role and dynamics of several key species groups, including gadids, salmon, snow crab and seabirds. Short presentations will be followed by discussions of knowledge gaps and next steps in improving our understanding of marine ecosystem processes in this dynamic and changing region.

Alaska Coastal Marine Institute Annual Studies Review

11:30 a.m. – 5:00 p.m., Endeavor Room

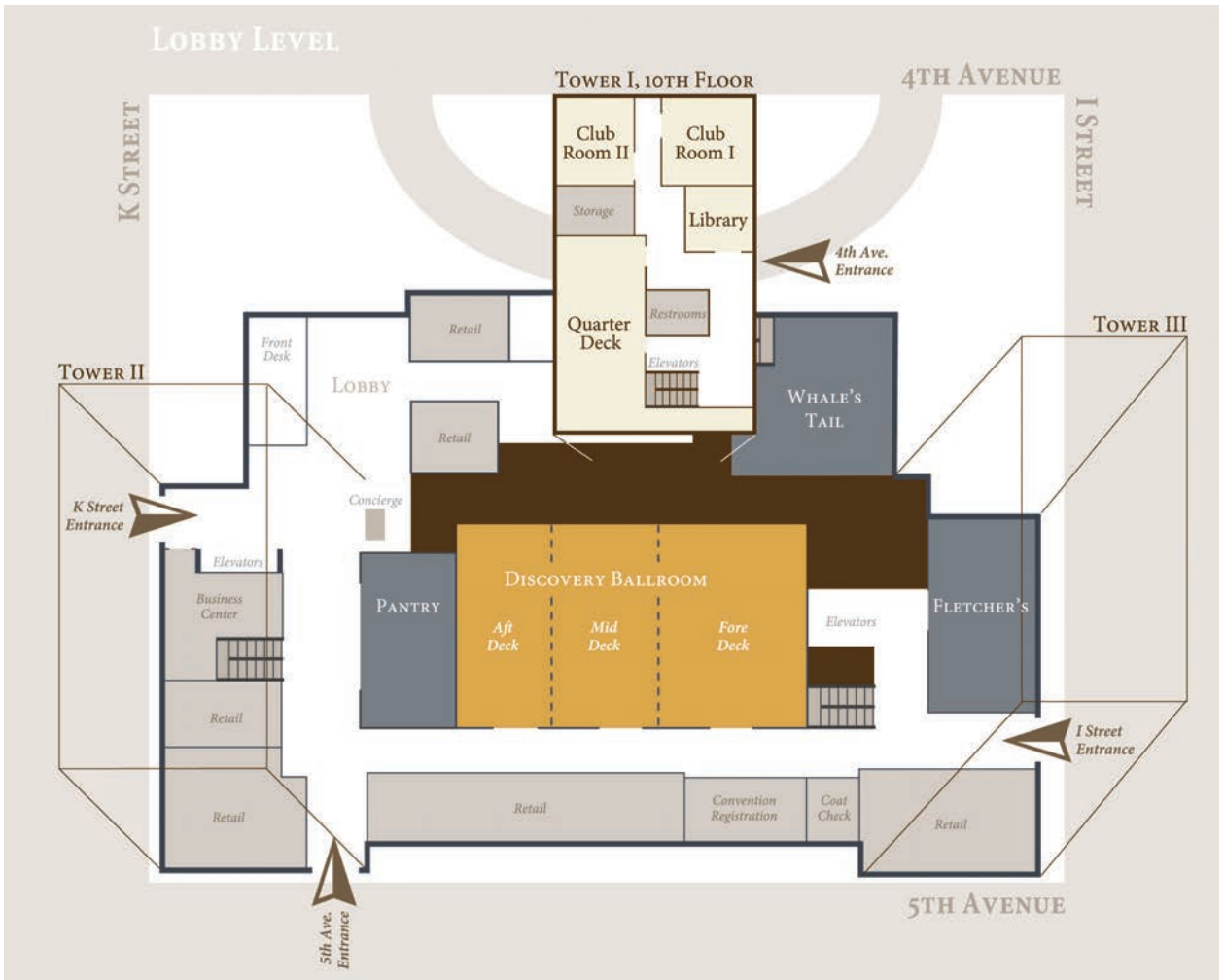
This public workshop provides an opportunity to learn about ongoing marine research relating to the management of oil and gas resources in the Alaska Outer Continental Shelf region. Ten projects funded through the Coastal Marine Institute will be presented with time allotted for questions and discussion among workshop attendees. Members of the public and science communities are encouraged to attend.

Exhibitors

1. NOAA/NOS/National Geodetic Survey
2. BOEM
3. Michael Baker International
4. Illustrator John Norton
5. National Park Service
6. U.S. Seafoods
7. Fairweather/Norseman
8. Oceanic Research Services
9. Eco Analysts
10. ASL Environmental Sciences
- 11-12-13. Share Fair Corner (ASG, AOOS, NPRB, ASLC, NOAA AFSC)
14. Sitka Sound Science Center
15. USGS
16. USARCC

Venue Maps

Hotel Captain Cook, 939 W. 5th Ave. Lobby Level and Tower



Shuttle service is provided between the Hotel Captain Cook (939 W. 5th Ave.) and the Egan Center (555 W. 5th Ave.) from 5:45 p.m. – 8:45 p.m. for those going to and from Poster Sessions.

Hotel Captain Cook, Lower Lobby Level



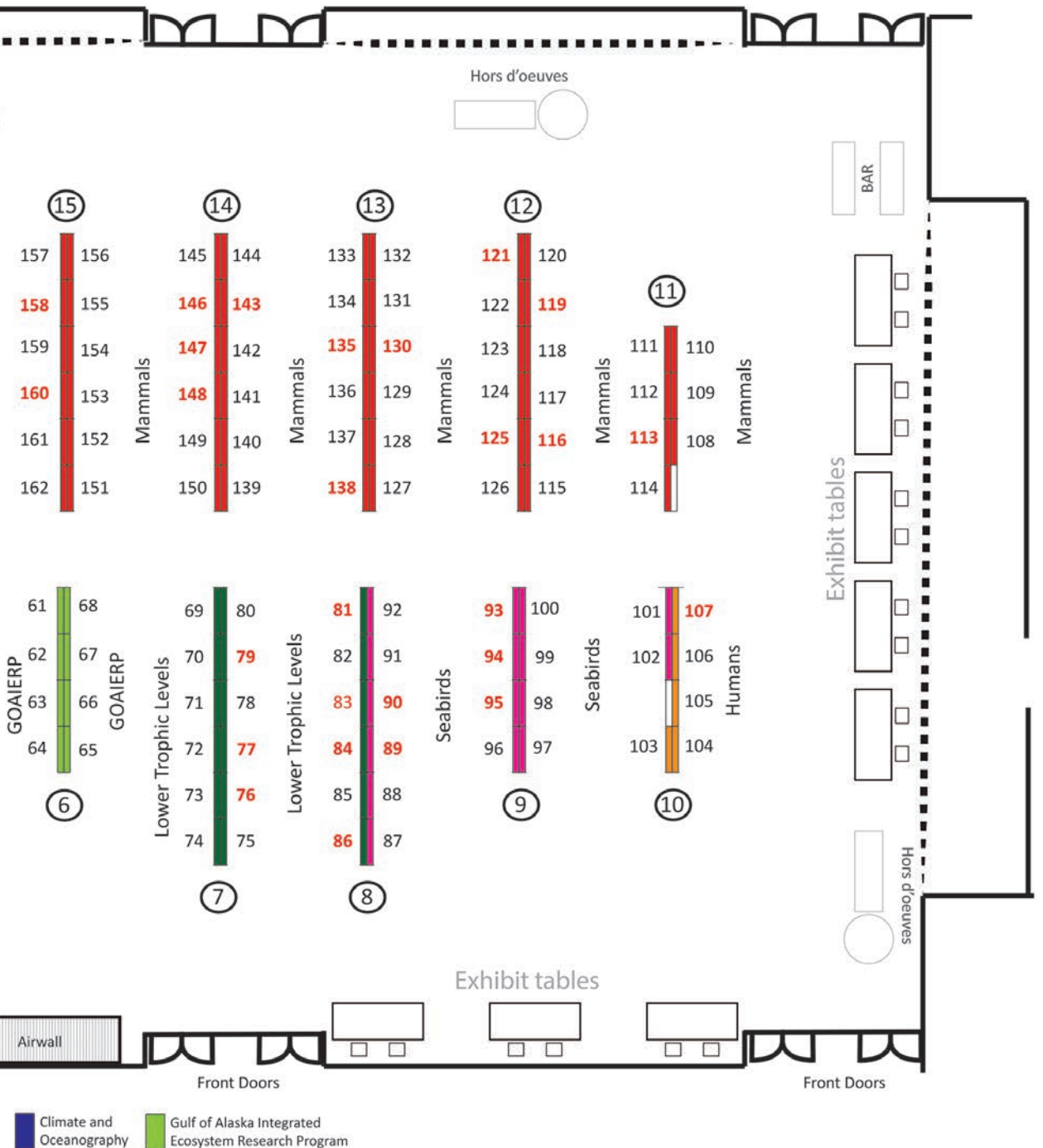
Shuttle service is provided between the Hotel Captain Cook (939 W. 5th Ave.) and the Egan Center (555 W. 5th Ave.) from 5:45 p.m. – 8:45 p.m. for those going to and from Poster Sessions.

Venue Maps

Egan Civic & Convention Center, 555 W. 5th Ave. Explorers Hall

Shuttle service is provided between the Hotel Captain Cook (939 W. 5th Ave.) and the Egan Center (555 W. 5th Ave.) from 5:45 p.m. – 8:45 p.m. to assist those needing transportation to and from the Poster Sessions.





Thank You!

The Symposium would not have been possible without the help of many volunteers!

Thank you to the **AMSS Organizing Committee** and a special thanks to the following for a substantial contribution by coordinating key aspects of the Symposium:

Organizing Committee Chair:
Crystal Benson-Carlough, NPRB

Poster Session Coordinator
Mary Whalen, USGS

Abstract Review Committee Chair
Danielle Dickson, NPRB

Abstract Book Production
NPRB, NOAA

Exhibits Coordinator
Crystal Benson-Carlough, NPRB

Keynote Speakers Chair
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Non-Plenary Sessions and Workshops Coordinator
Crystal Benson-Carlough, NPRB and Holly Kent, AOOS

Student Awards Coordinator
Marilyn Sigman, COSEE

Registration, Time Keeping, Student Judging, and Poster Volunteers
We Cannot Thank You Enough for Donating Your Time!

Thank You Sponsors!



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Alaska Bering Sea Crabbers



Alaska Department of Fish and Game



Alaska Longline Fishermen's Association



Alaska Ocean Observing System



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Aleutian and Bering Sea Islands LCC



U.S. Bureau of Ocean Energy Management



Coastal Marine Institute



International Pacific Halibut Commission



National Park Service



NOAA Alaska Fisheries Science Center

NOAA Alaska Regional Collaboration Team



North Pacific Fishery Management Council



North Pacific Research Board



Oil Spill Recovery Institute



Prince William Sound Science Center



University of Alaska Fairbanks, School of Fisheries and Ocean Sciences



United States Arctic Research Commission

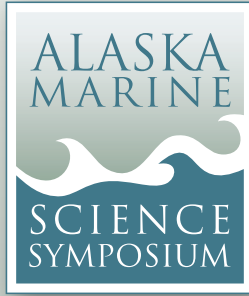


University of Washington, School of Aquatic and Fishery Sciences



U.S. Geological Survey Alaska Science Center

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